

Cementing Treatment



Start Date 10/31/2017 **Well** 33-10-4L Buford
End Date 11/7/2017 **County** WELD
Client Confluence DJ LLC **State/Province** CO
Client Field Rep Red **API** 05-123-45542
Service Supervisor Orlando Fuentes **Type of Job** Long String
District Cheyenne, WY

WELL GEOMETRY

Type	ID (in)	OD (in)	Wt. (lb/ft)	MD (ft)	TVD (ft)	Excess(%)
Previous Casing	8.92	9.63	36.00	1,552.00	1,552.00	
Open Hole	8.50			17,484.00	7,508.00	8.00
Casing	4.78	5.50	20.00	17,473.00	7,508.00	

Shoe Length (ft): 18

HARDWARE

Bottom Plug Used? yes
Bottom Plug Provided By Customer
Bottom Plug Size 5.5
Top Plug Used? Yes
Top Plug Provided By Customer
Top Plug Size 5.5
Landing Collar Depth (ft) 17,457

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CIRCULATION PRIOR TO JOB

Well Circulated By	Rig	10 sec SGS	8
Circulation Prior to Job	yes	10 min SGS	10
Circulation Time (min)	180	30 min SGS	11
Circulation Rate (bpm)	8	Flare Prior to/during the Cement Job	No
Circulation Volume (bbls)	1440	Gas Present	No
Lost Circulation Prior to Cement Job	NO		
Mud Density In (ppg)	10.6		
Mud Density Out (ppg)	10.6		
PV Mud In	22		
YP Mud In	13		

TEMPERATURE

Ambient Temperature (°F)	60	Flow Line Temperature (°F)	70
Mix Water Temperature (°F)	60		

BJ FLUID DETAILS

Fluid Type	Fluid Name	Density (ppg)	Yield (Cu Ft/sk)	H2O Req. (gals/sk)	Vol (sk)	Vol (Cu Ft)	Vol (bbls)
Spacer / Pre Flush / Flush	CD Spacer	11.0000					80.0000
Lead Slurry	P100-X2	12.5000	2.0758	11.84	840	1,744.0000	310.4000
Tail Slurry	P50-X1	13.5000	1.4774	7.45	1,775	2,618.0000	466.2000
Displacement 1	MMCR Water	8.3337				0.0000	10.0000
Displacement Final	Biocide and Clay Protection	8.3331				0.0000	387.54000

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Fluid Type	Fluid Name	Component	Concentration	UOM
Spacer / Pre Flush / Flush	CD Spacer	GELLANT WATER, GW-86	0.80	PPB
Spacer / Pre Flush / Flush	CD Spacer	SAND, S-8, Silica Flour, 200 Mesh	100.00	PCT
Spacer / Pre Flush / Flush	CD Spacer	SURFACTANT, SS-267, (BJS ONLY)	0.50	GPB
Spacer / Pre Flush / Flush	CD Spacer	Spacer Surfactant, SS-247, (BJS Only)	0.50	GPB
Lead Slurry	P100-X2	SPECIAL ADDITIVE, MPA-300	0.10	BWOB
Lead Slurry	P100-X2	FP-25, Dry Foam Preventer (BJS Only)	0.30	BWOB
Lead Slurry	P100-X2	CEMENT, ASTM TYPE III	100.00	PCT
Lead Slurry	P100-X2	IntegraSeal CELLO	0.13	LBS/SK
Lead Slurry	P100-X2	RETARDER, HIGH TEMP, R-31 (BJS Only)	0.17	BWOB
Lead Slurry	P100-X2	FLUID LOSS, FL-24, (BJS Only)	0.30	BWOB
Lead Slurry	P100-X2	BONDING AGENT, BA-60	0.40	BWOB
Tail Slurry	P50-X1	GELLANT WATER, GW-86	0.10	BWOB
Tail Slurry	P50-X1	CEMENT, CLASS G	50.00	PCT
Tail Slurry	P50-X1	FLUID LOSS, FL-66	0.20	BWOB
Tail Slurry	P50-X1	AR-20	0.10	BWOB
Tail Slurry	P50-X1	Flyash (Rockies)	50.00	PCT
Tail Slurry	P50-X1	EXTENDER, BENTONITE	2.00	BWOB
Tail Slurry	P50-X1	FP-25, Dry Foam Preventer (BJS Only)	0.30	BWOB
Displacement 1	MMCR Water	AR-61	0.10	GPB
Displacement Final	Biocide and Clay Protection	BIOCIDE, ALPHA 544	0.01	GPB
Displacement Final	Biocide and Clay Protection	ASF-50	0.08	GPB

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TREATMENT SUMMARY

Time	Fluid	Rate (bpm)	Fluid Vol. (bbls)	Pipe Pressure (psi)
8:38	CD Spacer	4.00	80.00	500
8:58	P100-X2	6.00	310.40	750
9:48	P50-X1	6.00	466.20	300
11:24	MMCR Water	6.00	10.00	110
11:26	Biocide and Clay Protection	7.00	376.60	1500

	Min	Max	Avg
Pressure (psi)	0	6500	3000
Rate (bpm)	4	7	7

DISPLACEMENT AND END OF JOB SUMMARY

Displaced By	BJS	Amount of Cement Returned/Reversed	50
Calculated Displacement Volume (bbls)	387.54	Method Used to Verify Returns	Visual
Actual Displacement Volume (bbls)	380	Amount of Spacer to Surface	80
Did Float Hold?	Yes	Pressure Left on Casing (psi)	0
Bump Plug	No	Amount Bled Back After Job	3
		Lost Circulation During Cement Job	No

Customer Name Confluence Resources
 Well Name Buford 33-10-4L
 Job Type Long String

District Cheyenne
 Supervisor Orlando Fuentes
 Engineer _____



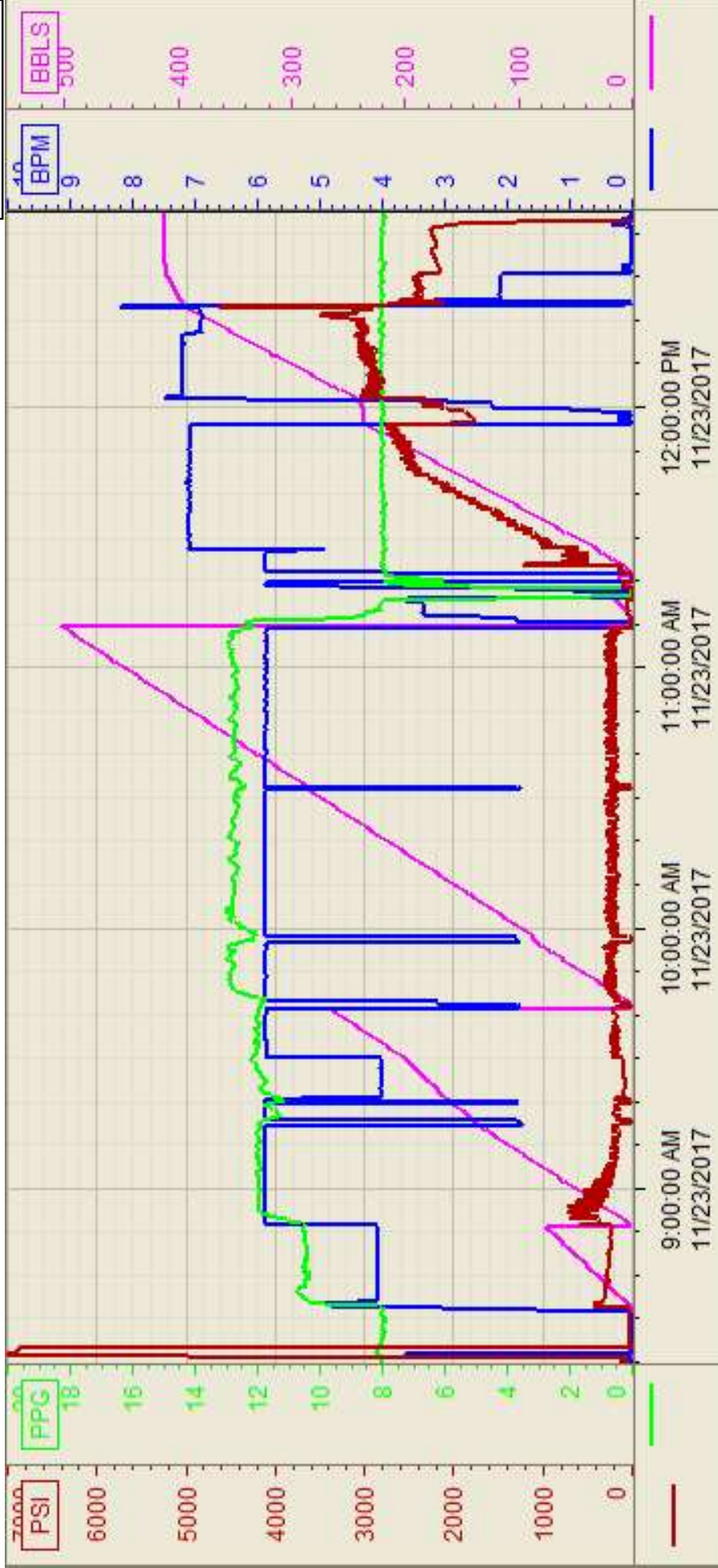
Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psi)	Comments
1	11/22/2017 23:00		Call Out							BJ services crew gets call out for job.
2	11/23/2017 1:30		Depart Facility							BJ services crew departs facility
3	11/23/2017 4:00		Arrive On Location		48					BJ services arrives on location
4	11/23/2017 4:30		Pre Rig Up Meeting							BJ services crew has a pre rig up safety meeting
5	11/23/2017 4:30		Rig Up							BJ services rigs up pump and lines.
6	7:30		Safety Meeting							BJ services crew has a safety meeting and goes over job procedure with Co-man and rig hands.
7	8:20		Pressure Test						6500	Pressure test to 6500 psi.
8	8:38		Pump CD Spacer			11	4	80	500	Pump 80 of 11 ppg CD spacer at 4 bpm w/ 500 psi.
9	8:58		Pump Lead Cement			12.5	6	309	750	Pump 309 bbl - 840 sks of 12.5 ppg 2.07 yld 11.76 g/sk of lead cement at 6 bpm with 750 psi.
10	9:48		Pump Tail Cement		60	13.5	6	465	300	Pump 465 bbl - 1775 sks of 13.5 ppg 1.47 ylf 7.35 g/sk of tail cement at 6 bpm w/ 300 psi
11	11:16		Shut Down							Shut down
12	11:18		Clean Pumps/Lines							Clean pumps and lines to pit.
13	11:24		Drop Bottom Plug							Drop bottom plug
14	11:24		Pump Wet Shoe							Pumped 10 bbls of h2o w/ 1gal. Of AR 61 retarder.
15	11:26		Shut Down							Shut down
16	11:26		Drop Top Plug							Drop top plug.
17	11:27		Start Disp.			8.33	7		150	Start H2O displacement at 7 bpm w/150 psi , Tattle Tale Indicated Plug Is Gone
18	12:01		Shut Down			8.33		220		AT 220 bbls into displacement shut down due to rig swaapping returns to cement baskets.
19	12:04		Came Back On Line			8.33	2	220	2250	Came back online at 2 bpm w/ 2250 psi.
20	12:06		Speed Up Rate			8.33	7	225	2880	At 225 bbls into displacement speed up rate to 7 npmw/ 2880 psi..
21	12:10		Spacer to surface			8.33	7	250	3120	At 250 bbls into displacemtn started to see spacer back at 7 bpm w/3120 psi.
22	12:21		Cement to surface			8.33	7	330	3180	At 330 bbls into displacemnt started to see ceemnt to surface at 7 bpm w/3180 psi
23	12:24		Burst plug			8.33	7	370	4000	At 370 bbls into displacement burst top plug due to not seeing the first plug burst. (Top plug bursted at 4000 psi.
24	12:25		Slow down rate			8.33	2	370	2300	Slow down rate to 2 bpm /2300 psi.
25	12:31		Shut down			8.33	2	380		At 380 bblw away into displacement shut down did not land plug due to top plug bursting and not catching it.
26	12:35		other							Talk to customer engineer and went over not landing the plug after the 10 bbl wet shoe pumped. Checked the chart came to the conclusion that bottom plug was burst at 360 bbls away and bursted top plug at 370 bbls away and pumped 10 bbls over calculated displacement.
27	12:48		Check floats							Check floats got 3 bbls back floats held.
28	13:00		Pre rig down meeting							BJ services crew has a pre rig down meeting.
29	13:30		Rig down		73					BJ services crew starts rig down.
30	16:00		Depart location							BJ services crew departs location.
31			other							Total spacer to surface 80 bbls
32			other							Total cement to surface 50 bbls



Print Date/Time

11/23/2017 2:16:20 PM

Customer: Confluence Resources
 Well Number: 33-10-4L
 Lease Info: Buford



Name	Y value	X value/time stamp	Tag name Y
1 PS - Press (PSI)	-35.8	11/23/2017 12:45:07 PM	CementerPS_DISCHARGE_PRESS_DIAL
2 DH - Density (PPG)	7.94	11/23/2017 12:45:03 PM	CementerDENSITY2_ACTUAL_RATE
3 Combined Rate (BPM)	0.00	11/23/2017 12:45:03 PM	CementerFlow_Combined
4 Down Hole Total (BBLs)	410.9	11/23/2017 12:45:03 PM	CementerDOWNHOLE_FLOW_TOTAL
5			

Source: Control1 2:16:14 PM